to said reflex algorithm.

8. The diagnostic system according to claim 1, further comprising a hematology analyzer coupled to said processor, and wherein the program further specifies hematology measurements to be executed by the hematology analyzer in response to the hematology analyzer receiving a command from said processor.

9. A system for executing a sequence of biochemical marker measurement steps to generate an indication of a pathology, the biochemical marker measurement steps including an immunoassay measurement and a clinical chemistry assay measurement, each of the biochemical marker measurement steps comprising measuring at least one concentration level or activity of at least one biochemical marker in at least one of a urine, serum, plasma or whole blood sample, the system comprising:

> means for performing an immunoassay measurement;

> means for performing a clinical chemistry assay measurement;

> means for sample handling between the immunoassay measurement means and the clinical chemistry assay measurement means;

> means for storing information representing a reflex algorithm indicating a plurality of predetermined sequences of biochemical marker measurements;

> means for receiving information concerning outputs from biochemical marker measurements conducted on the immunoassay means and the clinical chemistry assay means;

> means for selectively commanding said immunoassay measurement means and said clinical chemistry assay means to perform a specified biochemical marker measurement according to said reflex algorithm; and

> means for specifying an indication of the pathology according to the stored information in response to the information concerning outputs from biochemical marker measurements.

10. A system for executing a sequence of biochemical marker measurement steps, the biochemical marker measurement steps including immunoassay and clinical chemistry assays,

each of the biochemical marker measurement steps comprising measuring at least one concentration level or activity of at least one biochemical marker in at least one of a serum, plasma or whole blood sample obtained from a subject at a time specified by a reflex algorithm, the system comprising:

immunoassay instrumentation that allows automatic execution of an immunoassay measurement;

clinical chemistry instrumentation that allows automatic execution of a clinical chemistry assay measurement;

a sample handling device coupled between said immunoassay instrumentation and said clinical chemistry instrumentation to allow sharing of samples therebetween;

a computer-readable medium that stores information that represents the reflex algorithm; and

a processor coupled to said immunoassay instrumentation, said clinical chemistry instrumentation, and said computer-readable medium, wherein said processor receives information representative of outputs from biochemical marker measurements conducted on the immunoassay instrumentation and on the clinical chemistry instrumentation, and selectively commands said immunoassay instrumentation and said clinical chemistry instrumentation to execute the biochemical marker measurement according to the reflex algorithm.

11. The system according to claim 10, wherein said processor selectively provides a suggested diagnostic indication of a pathology according to the reflex algorithm in response to receiving the information representative of outputs from biochemical marker measurements.